REMARKS

The Office Action mailed July 14, 2004 has been received and the Examiner's comments carefully reviewed. Claims 1, 13, 25, 33 and 34 have been amended. No new subject matter has been added. Claims 22, 24, and 27 have been cancelled. Claims 9, 12, 15, and 16 are withdrawn. Claims 1-21, 23, 25-26, and 28-34 are currently pending. Applicants respectfully submit that the pending claims are in condition for allowance.

Double Patenting

Claims 1-8, 10, 11, 13, 14, 19-21, 23, 25-29 and 34 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6, 10, 11, 16, 18, 24 and 25 of U.S. Patent No. 6,623,491 to Thompson.

Applicants respectfully traverse this rejection. To obviate the rejection, however, a terminal disclaimer of the term extending beyond the term of U.S. Patent 6,623,491 has been filed herewith. Therefore, it is respectfully submitted that each of claims 1-8, 10, 11, 13, 14, 19-21, 23, 25-29 and 34 is in condition for allowance and notification to that effect is requested.

Claim Objections

The Examiner objected to claim 13. Claim 13 has been amended as suggested by the Examiner. Applicants respectfully request withdrawal of this objection.

Rejections Under 35 U.S.C. §102

The Examiner rejected claims 25, 26, 28, 29 and 31 under 35 U.S.C. §102(e) as being anticipated by Fitz (U.S. Patent 6,129,700). Applicants respectfully traverse this rejection, but have amended claim 25 to advance this application to allowance. Applicants reserve the right to pursue the original subject matter via a continuing application.

Claim 25 has been amended to incorporate the subject matter of dependent claim 27. Claim 27 was rejected under 35 U.S.C. §103(a) as being unpatentable over Fitz (U.S. Patent 6,129,700) in view of Kaplan et al. (U.S. Patent 5,571,086). Applicants respectfully traverse this rejection.

The Examiner stated that Fitz does not include a stent delivery system providing fluid exchange apertures at both the proximal and distal ends of a stent. The Examiner relies upon Kaplan to make up for the deficiencies of Fitz.

Kaplan discloses a sleeve catheter 300 that can be used for placement of a stent 310. The sleeve catheter 300 includes slits 308 and perfusion ports 301. The axial slits 308 facilitate expansion by internal inflation of an angioplasty balloon. In particular, the slits 308 permit expansion when the sleeve catheter 300 is positioned over the balloon 322 of the balloon catheter, and the balloon 322 is inflated (see FIG. 3A).

Kaplan does not disclose first and second fluid exchange apertures located at opposite ends of the stent. Rather, the perfusion ports 301 of Kaplan are located only at the proximal end of the stent 310. The slits 308 are not fluid exchange apertures, rather the slits 308 are provided only to accommodate expansion of the balloon 322 when the distal end of the sleeve catheter 300 is positioned over the balloon 322. Without the slits 308, the balloon would not expand. The slits 308 are not fluid exchange apertures that deliver a media from a passageway to a patient's body lumen, as recited in claim 25.

The Examiner states that in FIG. 13 D an array of fluid exchange apertures are positioned along the catheter; and that the expansion member 280 is analogous to a stent location area of Fitz. The Examiner thereby concluded that it would have been obvious to include apertures at both ends of the stent.

Applicants respectfully submit that the expansion member 280 is not analogous to a stent location area; rather the expansion member is a part of an infusion catheter 200. Kaplan does however disclose a stent application. Yet even in the disclosed stent application (see FIG. 3A), Kaplan teaches perfusion ports 301 located only at one end of the stent, not at opposite ends of the stent. Modifying Fitz to include exchange apertures positioned on opposite ends of a stent can therefore only be based upon impermissible hindsight reconstruction.

Neither Kaplan nor Fitz teach or suggest a stent delivery system having first and second fluid exchange apertures positioned adjacent to opposite ends of a stent. Neither Kaplan nor Fitz provide a motivation to modify a stent delivery system to include first and second fluid exchange apertures positioned adjacent to opposite ends of a stent. At

least for these reasons, Applicants respectfully submit that independent claim 25, and depend claims 26, 28, 29 and 31 are patentable.

Rejections Under 35 U.S.C. §103

I. The Examiner rejected claims 1-8, 10, 11, 13, 14, 17-21, 23, 33 and 34 under 35 U.S.C. §103(a) as being unpatentable over Fitz (U.S. Patent 6,129,700) in view of Mische et al. (U.S. Patent 5,279,546). Applicants respectfully traverse this rejection.

A. Claims 1-8, 10, 11, 13, 14, 17-21, and 23

Claim 1 recites a catheter system including at least one spacer disposed with a fluid channel between an inner tubular member and an outer tubular member for maintaining a spacing between the inner and outer tubular members.

The Examiner stated that Fitz fails to include a spacer disposed in a fluid channel. The Examiner relies upon Mische to make up for the deficiencies of Fitz.

Mische discloses a catheter system including an outer catheter 70 and an inner catheter 72. The outer catheter 70 has a large central lumen 120 and aspiration lumens 126-132. The outer catheter also includes septal areas 134-140 that separate the aspiration lumens 126-132.

Mische does not teach or suggest a spacer disposed between inner and outer catheters 70, 72. Rather, the septal areas 134-140 are disposed within only the outer catheter 70, not between the outer catheter 70 and the inner catheter 72. Referring to FIG. 3 of Mische, there is no spacer between the large central lumen 120 of the outer catheter 70 and the inner catheter 72, as required by claim 1.

Further, the septal areas 126-132 do not maintain a spacing between inner and outer catheters, as required by claim 1. In particular, the septal areas 134-140 are provided to separate aspiration lumens 126-132. The septal areas do not separate or maintain the spacing between the inner catheter 72 and the outer catheter 70.

At least because neither Fitz nor Mische teach or suggest at least one spacer disposed with a fluid channel between an inner tubular member and an outer tubular member for maintaining a spacing between the inner and outer tubular members,

Applicants respectfully submit that independent claim 1, and dependent claims 2-8, 10, 11, 13, 14, 17-21 and 23 are patentable.

B. Claim 33

Claim 33 recites a catheter system including a plurality of splines disposed with a fluid channel between an inner tubular member and an outer tubular member for maintaining a spacing between the inner and outer tubular members.

At least for similar reasons, as discussed with regards to claim 1, Applicants respectfully submit that claims 33 and 34 are patentable.

C. Claim 34

Claim 34 recites a catheter system including a plurality of radial, spaced-apart spacer members for maintaining a spacing between the inner and outer tubular members.

As previously discussed, the septal areas 134-140 of Mische are provided to separate aspiration lumens 126-132 of the outer catheter 70. The septal areas do not separate or maintain the spacing between the inner catheter 72 and the outer catheter 70, as required by claim 34.

For at least this reason, Applicants respectfully submit that claim 34 is patentable.

In addition, each of claims 1, 33, and 34 have been amended to recite that the inner and outer tubular members are slidable relative to one another. These amendments are made for the purpose of clarification only and are not intended to limit the claims based upon any prior art disclosure.

II. The Examiner rejected claim 30 under 35 U.S.C. §103(a) as being unpatentable over Fitz (U.S. Patent 6,129,700) in view of Little (U.S. Patent 5,005,584). Applicants respectfully traverse this rejection.

Claim 30 depends upon claim 25. In view of the remarks regarding independent claim 25, further discussion regarding the independent patentability of dependent claim 30 is believed to be unnecessary. Applicants submit that dependent claim 30 is in condition for allowance.

III. The Examiner rejected claims 27 and 32 under 35 U.S.C. §103(a) as being unpatentable over Fitz (U.S. Patent 6,129,700) in view of Kaplan et al. (U.S. Patent 5,571,086). Applicants respectfully traverse this rejection. Claim 27 has been cancelled.

Claim 32 recites a stent delivery system including a catheter having a fluid exchange passageway. The fluid exchange passageway has openings located near proximal and distal ends of a stent mounting location. For similar reasons as discussed with regards to claim 25, Applicants respectfully submit that claim 32 is patentable.

SUMMARY

It is respectfully submitted that each of the presently pending claims (claims 1-21, 23, 25-26, and 28-34) is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby.

Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future.

Respectfully submitted,

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